REMARKS

I. Status of the Application

At the time of the Action, Claims 29-40 were pending. Claim 29 stands rejected under Sections 102(b) and 102(e). All pending claims stand rejected under Section 103(a) and under the doctrine of obviousness-type double patenting. These rejections are addressed below.

II. The Section 102(b) Rejections of Independent Claim 29

The Action rejects independent Claim 29 under Section 102(b) based on U.S. Patent Nos. 6,116,821 to Teoh et al. (Teoh) and 6,039,512 to Chooi et al. (Chooi). The Action states that each of these references includes all of the elements of Claim 29; more specifically, the Action cites an "exit channel" (component 5 in both Teoh and Chooi) having a "forwardly directed jet aperture" (components 6B/32 in Teoh and Chooi), and a "rearwardly-directed aperture" (components 6a/31 in Teoh and Chooi), and further cites first and second pressure sources connected to the jet apertures. Based on these characterizations of Teoh and Chooi, the Action concludes that both Teoh and Chooi anticipate Claim 29.

In responding to Applicants' arguments in Applicants' paper dated July 23, 2007, the Action states that:

> the requirement is for the exit channel to PERMIT passage of a single article at a time the limitation of which would be satisfied with a passage permitting a minimum of a single article at that time as well as a plurality of articles at a time. There is no language in the claimed proscribing a maximum cross-section limit.
>
> However, a maximum claim limit could even be met with a single chokepoint rather than a cross-section throughout the channel that has a maximum cross-sectional diameter. A narrow cross-section of the downstream portion as in the Saito et al references limits the exit channel to a maximum of a single article at a plurality of locations including the exit.

The Action at page 9. In response, Applicants note that Claim 29 recites, in pertinent part:

> an exit channel fluidly connected to the housing at an entry end, and the entry end of the exit channel being configured in

> cross-section to permit the passage of only a single article at a time, the exit channel including a forwardly-directed jet aperture and a rearwardly directed jet aperture, the exit channel having walls of constant cross-section between the entry end and the rearwardly-directed jet aperture . . .

Thus, the forwardly-directed jet aperture and the rearwardly-directed jet aperture are included in the exit channel **downstream** of the entry end, which **entry end** is configured in cross-section to **permit the passage of only a single article at a time**. Also, the portion of the exit channel between the entry end and the rearwardly-directed jet aperture has walls of constant cross-section.

Neither Teoh nor Chooi meets these recitations. Figure 1 of Teoh and Figure 1 of Chooi are shown below.

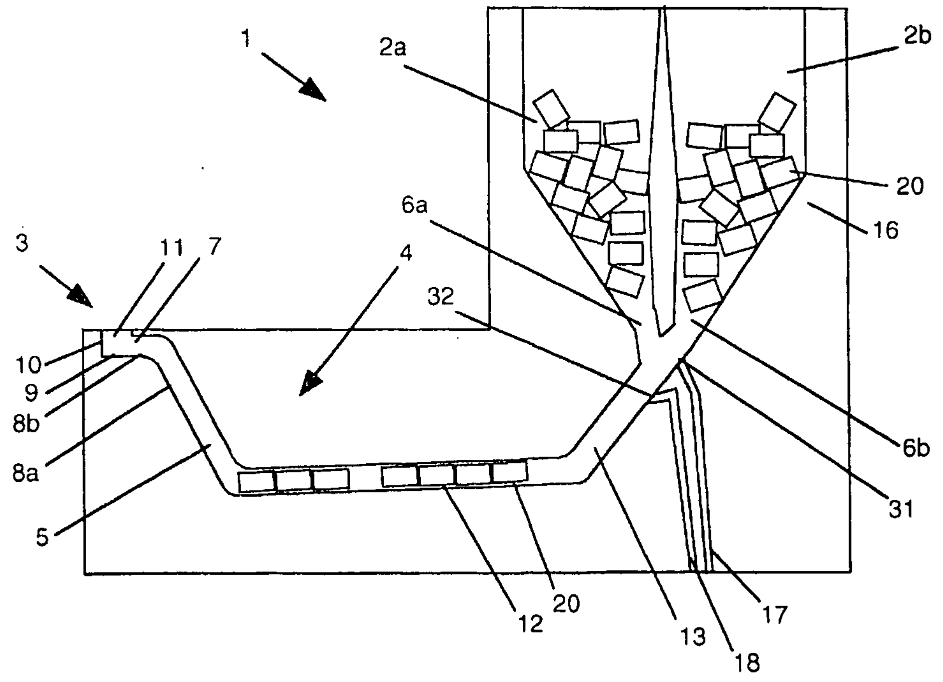

Fig. 1

Figure 1 of Teoh

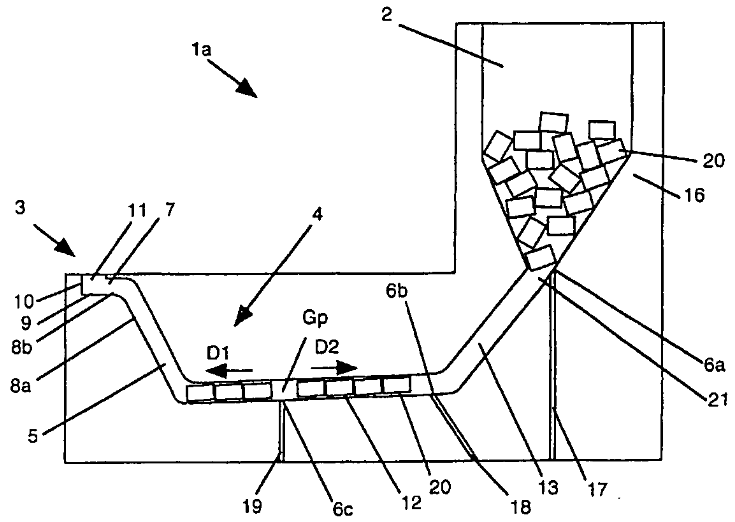

Fig. 1

Figure 1 of Chooi

The outlets 6a/31 identified in the Action as being a "rearwardly-directed jet aperture" in both Chooi and Teoh are connected with a hopper (2 in Chooi, 2a and 2b in Teoh), each of which is configured to hold therein multiple articles at once as opposed to a single article as recited in Claim 29. In neither instance is the outlet 6a/31 located downstream of the entry end of the passage 13 as the entry end is defined in Claim 29; instead, the outlets 6a/31 are located upstream of the portion of the passage 13 that will permit the passage of only a single article (*i.e.*, its "entry end" as defined in Claim 29).

Moreover, Claim 29 states that the walls of the exit channel are of constant cross-section between the entry end and the rearwardly-directed jet aperture. This is clearly not the case with the Chooi and Teoh devices, as the walls around the outlet 6a/31 taper significantly. It is only downstream of the outlets 6a/31 that the walls of the passages 13 are of constant cross-section.

In view of the foregoing, the hoppers 2, 2a, 2b of Teoh and Chooi cannot serve as part of the "exit channel" because their "entry ends" (the top ends of the hoppers 2, 2a, 2b) are configured to permit the passage of many articles. Similarly, the passages 13 of Teoh and Chooi cannot serve as the "exit channel" because there is no rearwardly-directed jet aperture located downstream of the entry end of the passage 13 when the entry end is as defined in Claim 29. Accordingly, neither Teoh nor Chooi discloses at least this element of Claim 29, so the rejection under Section 102(b) set forth in the Action is improper and should be withdrawn.

III. The Section 103(a) Rejections

Applicants further submit that Claim 29 is free of the art of record under Section 103(a). The Action rejects many of the claims under Section 103(a) based on U.S. Patent No. 6,443,326 to Saito (Saito) in combination with Chooi or Teoh; howeer, The Action concedes that Saito and its Japanese counterpart (Japanese Patent No. 11/171,323) do not disclose the elements discussed above as being absent from Teoh and Chooi. Thus, even the combination of Saito with Teoh or Chooi would still lack at least the aforementioned elements of Claim 29.

The Action also combines Teoh and Chooi with one or more of multiple secondary references in rejecting Claim 29 under Section 103(a); however, none of these secondary references discloses a rearwardly-directed jet aperture included in the exit channel. U.S. Patent No. 4,953,749 to Kubota et al (Kubota) discloses a device for separating electronic chips, and in Figures 4(a) and 4(b) illustrates a chip alignment hole 4 that connects to two air ejection ports 5, 14 that are perpendicular to the chip alignment hole 4. Another air ejection port (also designated at 5) connects the other two air ejection ports 5, 14 rather than connecting to the chip alignment hole 4. Thus, Kubota also fails to disclose an exit channel with a rearwardly-directed jet aperture. U.S. Patent No. 5,725,160 to Harper et al. (Harper) discloses a wood chip blower that has no "exit channel" configured to permit the passage of a single article at a time, and is cited in the Action only for the disclosure of the use of a pressure within a range of 1 to 500 psi. U.S. Patent No. 4,769,904 to Porterfield et al. (Porterfield) discloses a device for handling electronics chips, but has no rearwardly-directed jet aperture and is cited in the Action only for the pressure range of 1 to 500 psi.

Inasmuch as none of the secondary references discloses a **rearwardly-directed jet aperture** that is **included in the exit channel** with **the exit channel having an entry end** that is **configured to permit the passage of only a single article at a time**, none of the secondary references overcome the deficiencies of Teoh and/or Chooi. The absence of at least this element from any of the cited references renders the rejections under Section 103(a) clearly erroneous.

IV. The Double Patenting Rejection

The Action rejects all of the pending claims under the judicially created doctrine of double patenting based on U.S. Patent No. 6,631,826 (the parent to this continuation application). Applicants have submitted (on February 28, 2008) an executed Terminal Disclaimer that obviates this rejection.

IV. New Claim 47

Applicants proffer new Claim 47 for entry and examination. Applicants note that, in addition to the reasons set forth above, Claim 47 is independently patentable because none of the cited references include both a rearwardly-directed jet in an exit channel and a hole that serves to introduce air into the housing itself. Both Chooi and Teoh have rearwardly-directed outlets that are intended to introduce air into hoppers to agitate items contained therein. As such, one skilled in this art would be disinclined to add another aperture in the exit channel. Accordingly, Applicants submit that the subject matter of Claim 47 is free of the cited art for this additional reason.

V. Conclusion

Inasmuch as all of the outstanding issues raised in the Action have been addressed, Applicants respectfully submit that the application is in condition for allowance, and requests that it be passed to allowance and issue.

Respectfully submitted,

James R. Cannon
Registration No. 35,839

Myers Bigel Sibley & Sajovec, P.A.
P. O. Box 37428
Raleigh, North Carolina 27627
Telephone: (919) 854-1400
Facsimile: (919) 854-1401
Customer Number 20792

CERTIFICATION OF TRANSMISSION

I hereby certify that this correspondence is being transmitted via the Office electronic filing system in accordance with § 1.6(a)(4) to the U.S. Patent and Trademark Office on May 8, 2009.

Signature: ______________________
Cara L. Rose